UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,151	06/28/2006	Jobst Lahrsow	LAHRSOW=1	2189

1444 7590 03/26/2010

BROWDY AND NEIMARK, P.L.L.C.
624 NINTH STREET, NW
SUITE 300
WASHINGTON, DC 20001-5303

EXAMINER	
MCCLAIN-COLEMAN, TYNESHA L.	

ART UNIT	PAPER NUMBER
1794	

MAIL DATE	DELIVERY MODE
03/26/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/576,151	LAHRSOW, JOBST	
	Examiner	Art Unit	
	TYNESHA MCCLAIN-COLEMAN	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 December 2009 and 12 January 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *11,13-20 and 24-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *11,13-20 and 24-35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The amendments filed on December 15, 2009 and January 12, 2010 are acknowledged. Claims 11, 13-20, and new claims 24-35 are pending in the application. Claims 1-10, 12, and 21-23 have been cancelled.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 11, 13-17, 19-20, 24-30, and 32-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Maeda et al.* US 4889728 (hereinafter "*Maeda*") in view of *Lederman* US 20030068408 (hereinafter "*Lederman*").

5. Regarding claims 11, 13-17, 19-20, 24-30, and 32-35, *Maeda* discloses a method of preparing chewing gum (claims 20 and 33) by combining gum base, humectant, a gum, and anhydrous crystalline maltose. The mixture is kneaded thoroughly, and flavor can be added. The solid-form chewing gum is molded into an optionally selected shape and allowed to stand under high humidity (drying) for five days (column 2, lines 35-54).

The humectant may be water (column 3, lines 16-18). The gum may be gelatin (column 3, lines 55-56). In example 1, citric acid is used as flavoring, which is expected to produce a fruit flavored gum (claims 25 and 35) (column 5, lines 25-35).

6. However, *Maeda* does not disclose adding a reactive source of calcium to the aqueous solution and adding phosphorous acid to the solution.

7. *Lederman* discloses a method of making powder comprising calcium mixed with acid and water, and the resulting powders are highly soluble when reconstituted in aqueous solution (paragraphs [0021]-[0023]). The source of calcium comes from calcium salts, such as calcium carbonate or calcium hydroxide (claims 19 and 32) (paragraph [0022]). Examples of acids that can be used are lactic acid (claims 15 and 29), citric acid (claims 16 and 30), malic acid (claims 16 and 30), acetic acid, ascorbic acid, phosphoric acid, and/or any food grade acid that will solubilize the calcium or combinations thereof (claims 13, 14, 27, and 28) (paragraph [0024]). The acids used combine with the calcium to form a salt, so acids that result in bioavailable calcium salts are preferred (paragraph [0024]). For example, acetic acid can be added with another acid such as lactic acid to increase the solubility of calcium (claims 17 and 26) (paragraph [0045]).

8. When the powder is reconstituted, calcium is present in at least around 1,000 mg/8 oz. Since 1g/kg is equal to 28.35 mg/oz, the amount of calcium present is 4.41g/kg, which falls within the applicant's claimed range (see specification page 6, lines 8-10). The amount of acid used is usually about two to three times the weight of the calcium component (paragraph [0024]). Since the calcium is present in about 4.41

g/kg, the amount of phosphoric acid used would be 8.82 g/kg-13.23 g/kg, which falls within the applicant's claimed range (see specification page 8, lines 4-6). The powder compositions, when reconstituted in water, can be added to gum (paragraph [0017]).

9. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to substitute the water in the method of making gum disclosed by *Maeda* with the reconstituted powder in water disclosed by *Lederman*.

10. One having ordinary skill in the art would have been motivated to do this because *Lederman* discloses the reconstituted powder may be used when formulating gums (paragraph [0014]), and the reconstituted powder may be added to gelatins (paragraph [0034]). Based upon the fact that the chewing gums disclosed by *Lederman* and *Maeda* are similar, it would have been obvious, given the teachings of *Lederman*, to substitute the water in the method of preparing gum disclosed by *Maeda* with the reconstituted powder in water as disclosed by *Lederman* with the expectation of successfully preparing a chewing gum.

11. It would also have been obvious to a person of ordinary skill in the art to prepare the homogenous chewing gum disclosed by *Maeda* in various colors, including making the chewing gum transparent (claims 24 and 34).

12. One having ordinary skill in the art would have been motivated to do this because *Maeda* discloses the chewing gum has a whitish appearance (column 2, lines 55-57), which includes transparent gums with a slight white hue. *Maeda* also discloses additives such as colorant may be adding when preparing the chewing gum (column 2, lines 41-43).

13. In addition to this, *Lederman* teaches the powdered compositions, when reconstituted in water, are clear (paragraph [0017]). Therefore, it would have been obvious, given the teachings of *Lederman*, to make the chewing gum disclosed by *Maeda* with the reconstituted powder in water with the expectation of successfully preparing a chewing gum in various colors, including a transparent gum.

14. Claims 18 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Maeda et al.* US 4889728 (hereinafter "*Maeda*") in view of *Lederman* US 20030068408 (hereinafter "*Lederman*") as applied to claims 17 and 26 above, in further view of *Yang et al.* US 20010051197 (hereinafter *"Yang"*).

15. With respect to claims 18 and 31, *Maeda* in view of *Lederman* does not disclose the first calcium-complexing acid is pyruvic acid.

16. *Yang* discloses adding organic acids, such as citric acid, malic acid, and pyruvic acid, to a calcium source (paragraph [0162]).

17. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the acids disclosed by *Yang* into the method of making a gum composition disclosed by *Maeda* in view of *Lederman*.

18. One having ordinary skill in the art would have been motivated to do this because *Lederman* teaches acids can be used in combination in order to increase the solubility of the calcium, and any food acid may be used (paragraph [0045]). Also, *Yang* teaches when at least two different organic acids are combined with a calcium salt, the water solubility of the calcium is enhanced (paragraph [0162]). Based upon the fact that

Maeda in view of *Lederman* and *Yang* teach a calcium source in the presence of organic acids, it would have been obvious, given the teachings of *Yang*, to use various combination of acids, including pyruvic acid with citric and/or malic acid, with the expectation of successfully preparing a powder that is clear when reconstituted in water which may be used to prepare chewing gum.

Response to Arguments

19. Applicant's amendment with respect to the rejection(s) of claim(s) 17 under 35 U.S.C. 112 has been acknowledged, and the rejection of claim 17 has been withdrawn.

20. Applicant's arguments filed on December 15, 2009 and January 12, 2010 have been fully considered.

21. Applicant's arguments with respect to page 16, 2nd – 4th paragraphs (12/15/09) have been considered but they are not persuasive. Applicant argues *Yang* does not give any hint on how to control the transparency and homogeneity of a gelatin based chewable mass. However, the transparency and homogeneity of the chewing gum is not noted in independent claims 11 and 26 (new) of the present invention. Therefore, the acids disclosed by *Yang* may be used in the preparation with the expectation of successfully producing a chewable mass of any color.

22. Applicant's arguments with respect to claims 11-23, see pages 8-15 (12/15/09), have been considered but are moot in view of new ground(s) of rejection. Applicant amended independent claim11 to include the calcium content and phosphoric acid content, which were not previously considered upon the initial rejection of claim 11. The

values were previously presented in independent claim 21 as well as claims 22 and 23, and these claims do not depend upon claim 11. Therefore, the amended claim overcomes the previous rejection. A new search of prior art is necessary given the new combination of limitations in claim 11 added by amendment.

23. As described above, a new ground(s) of rejection is made in view of *Maeda et al.* US 4889728 (hereinafter "*Maeda*") and *Lederman* US 20030068408 (hereinafter "*Lederman*"). *Maeda* in view of *Lederman* discloses a method of preparing a chewing gum composition similar to the chewable mass disclosed by the applicant.

24. In addition to this, a new ground(s) of rejection was made in view of *Maeda*, *Lederman*, and *Yang et al.* US 20010051197 (hereinafter "*Yang*"). As disclosed above, *Maeda* in view of *Lederman* and *Yang* disclose various organic acids may be used in the presence of calcium during the production of the chewing gum, which is similar to the method of making a chewable mass disclosed by the applicant. The purpose of the combination of organic acids is to increase the solubility of calcium, which is taught by both *Yang* (paragraph [0162]) and *Lederman* (paragraph [0045]). As disclosed by *Lederman*, the solubility of the calcium is important in order to produce a powder that is clear/transparent when reconstituted in water (paragraph [0024]). The reconstituted powder, which is clear in water, can be incorporated into chewing gum (paragraphs [0014] and [0015]).

Conclusion

25. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

26. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

27. Any inquiry concerning this communication or earlier communications from the examiner should be directed to TYNESHA MCCLAIN-COLEMAN whose telephone number is (571)270-1153. The examiner can normally be reached on Monday - Thursday 7:30AM - 5:00PM Eastern Time.

28. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on (571)272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

29. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/TYNESHA L MCCLAIN-COLEMAN/
Examiner, Art Unit 1794

/Jennifer C. McNeil/

Supervisory Patent Examiner, Art Unit 1794